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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Ward M. Peterson, *et al.*

Application Serial No.: 10/682,545

Filed: October 8, 2003

For: **METHOD OF TREATING  
EDEMATOUS RETINAL  
DISORDERS**

Group Art Unit: 1623

Examiner: Not Yet Assigned

Attorney's Docket No:  
03678.0073.DVUS04

Confirmation No.: 9737

#### Information Disclosure Statement

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

The PTO did not receive the following  
listed Items(s) 5 FOR  
9 NPL

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith. It is further understood that the Examiner will consider information that had been cited by or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. § 120. 1138 OG 37, 38 (May 19, 1992).

Applicants have checked the appropriate boxes below.

- 1. This Information Disclosure Statement is being filed;
  - ☐ a. Within three months of the U.S. filing date of a national application other than a continued prosecution application under §1.53(d);
  - ☐ b. Within three months of the date of entry of the national stage as set forth in §1.491 in an international application;
  - c. Before the mailing date of a first Office Action on the merits;
  - ☐ d. Before the mailing of a first Office Action after filing of a request for continued examination under § 1.115.

No statement under 37 C.F.R. § 1.97(e) or fee is required.

or;

- ☐ 2. This Information Disclosure Statement is being filed after the period specified in paragraph 1(a)-1(d) above, but before the mailing date of a Final Rejection or Notice of Allowance, or action that otherwise closes prosecution in the application, and
  - ☐ a. I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1), or

- ☐ b. I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2), or
- ☐ c. Attached is our Check No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ in payment of the fee under 37 C.F.R. § 1.17(p).
- ☐ 3. This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but on or before payment of the Issue Fee. Attached is our Check No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ in payment of the fee under 37 C.F.R. § 1.17(i), and
- ☐ a. I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1), or
- ☐ b. I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ 4. Relevance of the non-English language document(s) is discussed in the present specification.

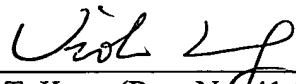
- ☐ 5. The document(s) was/were cited in a corresponding foreign application. An English language version of the foreign search report is attached for the Examiner's information.
- ☐ 6. A concise explanation of the relevance of the non-English language document(s) appears below:
- ☐ 7. The Examiner's attention is directed to co-pending U.S. Patent Application No. \_\_\_\_\_, filed \_\_\_\_\_, which is directed to related technical subject matter. The identification of this U.S. Patent Application is not to be construed as a waiver of secrecy as to that application now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited application and the art cited therein during examination.
- 8. Copies of the documents marked by \*, were cited by or submitted to the Office in Application Nos. 10/397,795, filed **March 25, 2003**, and 09/774,752, filed **January 30, 2001**, which are relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and to indicate in the official file wrapper of this patent application that the documents have been considered.

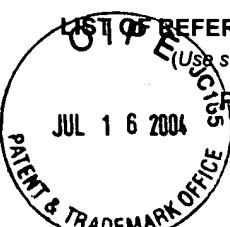
The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 08-3038 referencing docket number **03678.0073.DVUS04**.

Respectfully submitted,

Date: July 15, 2004

  
\_\_\_\_\_  
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	ATTY. DOCKET NO. 03678.0073.DVUS04	APPLICATION NO. 10/682,545
	APPLICANT Peterson et al.	
	FILING DATE Oct. 8, 2003	GROUP 1623

U.S. PATENT DOCUMENTS								
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	1.*	6,040,297	03/21/00	De Flora	514	047	01/14/97	
	2.*	6,258,374	07/21/01	Freiss et al.	424	436	09/03/98	
	3.*	6,348,589	02/2002	Pendergast et al.	536	25.6	02/06/98	
	4.*	6,323,187	11/2001	Yerxa et al.	514	51	05/21/99	
	5.*	6,277,855	08/2001	Yerxa	514	256	04/21/00	
	6.*	6,458,946	10/01/02	Maeda et al.	536	26.21	10/01/99	
	7.*	US2002/0156269 A1	10/24/02	Maeda et al.	536	26.21	04/12/02	
FOREIGN PATENT DOCUMENTS								
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	8.*	EP 1 043 329 B1	08/28/02	EP	C07H	19/10	X	
	9.*	EP 1 191 032 A1	03/27/02	EP	C07H	19/10	X	
	10.*	WO 98/34942	08/13/98	WO	6			
	11.*	WO 00/30629	06/02/00	WO				
	12.*	WO 01/87913	11/22/01	WO				
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)								
	13.*	Blaug, et al., "P2Y2 receptor agonists induce prolonged calcium, membrane voltage, conductance and fluid absorption increases in bovine RPE," <i>IOVS</i> , 41(4):S136 (2000) XP001088187						
	14.*	Burnstock, et al., "P2 purinergic receptors: Modulation of cell function and therapeutic potential," <i>Journal of Pharmacology and Experimental Therapeutics</i> 295(3) 862-869 (2000) XP002208652						
	15.*	Ferris, et al., "Oligomerization reactions of deoxyribonucleotides on montmorillonite clay: the effect of mononucleotide structure on phosphodiester bond formation," <i>Origins Life Evol. Biosphere</i> , 19(6):609-619 (1989) XP001085277						
	16.*	Maminishkis, et al., "Purinoceptor agonists increase fluid clearance out of subretinal space (SRS) blebs in vivo," <i>IOVS</i> , 41(4):S136 (2000) XP001083820						
	17.	Maminishkis, et al., "The P2Y <sub>2</sub> Receptor Agonist INS37217 Stimulates RPE Fluid Transport In Vitro and Retinal Reattachment in Rat," <i>IOVS</i> , 43(11): 3555-3566 (2002).						
	18.	Meyer, et al., "Effect of INS37217, a P2Y <sub>2</sub> Receptor Agonist, on Experimental Retinal Detachment and Electroretinogram in Adult Rabbits," <i>IOVS</i> , 43(11): 3567-3574 (2002).						

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<p align="center"><b>LIST OF REFERENCES CITED BY APPLICANT</b> (Use several sheets if necessary)</p> <p align="center"><b>PTO FORM 1449</b></p>	ATTY. DOCKET NO.	APPLICATION NO.
	03678.0073.DVUS04	10/682,545
	APPLICANT Peterson et al.	
	FILING DATE	GROUP
	Oct. 8, 2003	1623

19.	Nour, et al., " P2Y <sub>2</sub> Receptor Agonist INS37217 Enhances Functional Recovery After Detachment Caused by Subretinal Injection in Normal and <i>rd</i> s Mice," IOVS, 44(10): 4505-4514 (2003).
20.*	Peterson, et al., "Extracellular ATP activates calcium signaling, ion, and fluid transport in retinal pigment epithelium," <i>Journal of Neuroscience</i> , 17:(7)2324-2337 (1997) XP001087693
21.*	Sillero, et al., (2',3'-Dideoxynucleoside triphosphates (ddNTP) and di-2',3'-dideoxynucleoside tetraphosphates (ddNp4ddN) behave differently to the corresponding NTP and NP4N counterparts as substrates of firefly luciferase, and dinucleoside tetraphosphatase and phosphodiesterases," <i>Biochemica et Biophysica Acta</i> 1334(2-3):191-199 (1997) XP002208651
22.	Takahasi, et al., "Effect of Nucleotide P2Y <sub>2</sub> Receptor Agonists on Outward Active Transport of Fluorescein Across Normal Blood-retina Barrier in Rabbit," <i>Experimental Eye Research</i> 78:103-108, (2004).
23.*	Theoclitou, et al., "Characterization of stress protein LysU. Enzyme synthesis of diadenosine 5',5"-P <sub>1</sub> ,P <sub>4</sub> -tetraphosphate (Ap <sub>4</sub> A) analogs by LysU," <i>J. Chem. Soc., Perkins Trans.</i> 1(16):2009-2019 (1996) XP00108769
24.*	Williams, M., "P <sub>2</sub> Receptros as drug discovery targets," <i>Am. Chem. Soc.</i> 220 <sup>th</sup> , Medi-185 (2000) XP001085299
25.*	Zhavrid, et al., "Dicytidine-5'-pyrophosphates with antivirus activity," XP002208653

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.